

July 31, 2001

Ms. Barry Markowitz  
DTE Indycoke, LLC  
414 South Main Street, Suite 600  
Ann Arbor, MI 48104

Re: Second Minor Source Modification No: 097-14066-00061  
Source No.: 097-00387

Dear Mr. Markowitz:

As you may know, Citizen's Gas & Coke Utility (T097-7302-00061) applied for a Part 70 (Title V) Operating Permit on September 4, 1996. To date, the initial Part 70 Operating Permit for Citizen's Gas & Coke Utility has yet to be issued by the Indiana Department of Environmental Management (IDEM) and the City of Indianapolis Environmental Resources Management Division (ERMD). DTE Indycoke, LLC is collocated with Citizen's Gas & Coke Utility at 2950 East Prospect Street in Indianapolis, Indiana. Therefore, the term "source" in the Part 70 documents refers to both DTE Indycoke, LLC and the Citizens Gas & Coke Utility as one source.

On June 30, 2000, DTE Indycoke, LLC was issued a Part 70 Minor Source Modification 097-12101-00061.

DTE Indycoke, LLC applied for a Part 70 Minor Source Modification on February 28, 2001 requesting to add equipment missed in the initial permit and new equipment to be constructed. Also, the source requested to use different, more specific, emission factors, reflecting coal processing (in the initial permit emission factors for stone crushing operations were used).

Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

- (a) Two-conveyor Line:
  - a. One (1) Field Hopper Loading;
  - b. One (1) Field Hopper to Stacker Conveyor;
  - c. One (1) Stacker Conveyor to MMD Crusher;
  - d. One (1) MMD Crusher;
  - e. One (1) MMD Crusher to Hopper AA;
  - f. One (1) Hopper AA to Vibrating Feeder;
  - g. One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;
  - h. One (1) Crusher AP Operation;
  - i. One (1) Crusher AP to Silo Feed Conveyor AW;
  - j. One (1) Crusher AP to Silo Feed Conveyor AW;
  - k. One (1) Silo Feed Conveyor AW to 2 Silo AY;
  - l. One (1) Baghouse AL Discharge;
  - m. Two (2) Silos AY to 2 Weight Feeder BB;
  - n. Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
  - o. Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
  - p. Two (2) Pugmills Mixing BD Operation;

- q. Two (2) Pugmills BD Discharge to 2 Briquetter Feed Conveyors BE;
- r. Two (2) Briquetters Feed Conveyors BE to 2 Briquetters BF
- s. Two (2) Briquetters BF Operation;
- t. Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- u. Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- v. One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;
- (23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

(b) One-conveyor Line:

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;
- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;
- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (4) Sample Systems AJ, BL, BN (all operating at same time);

(c) Fugitive Emission Points:

- (1) Fugitives from Trucks - Unpaved Haul Road;
- (2) Fugitives from Tankers - Unpaved Haul Road;
- (3) Fugitives from Trucks - Paved Haul Road;
- (4) Fugitives from Tankers - Paved Haul Road.

(d) Three binder storage tanks, identified as Emission Unit ID BQ, each with a maximum

capacity of 25,000 gallons, storing water-based asphalt emulsion, or similar materials, equipped with no pollution control device, and exhausting to Stack/Vent ID BQ.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions please call Mr. Boris Gorlin at (317) 327-2280.

Sincerely,

Vaneeta M. Kumar  
Administrator, ERMD

#### Attachments

cc: File  
Compliance - Matt Mosier  
IDEM - Mindy Hahn

**PART 70 MINOR SOURCE MODIFICATION**

**OFFICE OF AIR QUALITY**  
**and**  
**INDIANAPOLIS ENVIRONMENTAL RESOURCES**  
**MANAGEMENT DIVISION**

**DTE Indycoke, LLC at  
Citizens Gas & Coke Utility  
2950 East Prospect Street  
Indianapolis, Indiana 46203**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: T097-12101-00061	
Issued by: Mona A. Salem, Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date: March 27, 2000
First Administrative Amendment: 097-13675-00061	Pages affected: 1, 3 & 12
Issued by: Daniel B. Dovenbarger Administrator	Issuance Date: February 15, 2001
Second Minor Source Modification No.: 097-14066-00061	Pages affected: 3, 3a, 3b, 12, 12a, 12b & 13
Issued by:  Vaneeta M. Cumar Administrator	Issuance Date:

## SECTION A

## SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Indianapolis Environmental Resources Management Division (IERMD). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a synthetic fuel manufacturing facility.

Responsible Official: Barry Markowitz  
Source Address: 2950 East Prospect Street, Indianapolis, Indiana, 46203  
Mailing Address: 414 South Main Street, Suite 600, Ann Arbor, MI 48104  
Phone Number: (734) 913-6046 for Katie Panczak  
SIC Code: 2999  
County Location: Marion County  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program; Minor under PSD Rules

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

A synthetic fuel manufacturing facility consisting of one (1) Two-conveyor line, one (1) One-conveyor line, with total capacity of 300 tons of coal per hour, and supporting equipment. Emissions are controlled by two (2) baghouses Emission Unit IDs AL and NH, having a maximum design flow rate of 20,000 acfm each exhausting to Stacks IDs AL and NH, having full and partial enclosures, with the addition of post binder solution and including the following emission units and control equipment:

#### (a) Two-conveyor Line:

- (1) One (1) Field Hopper Loading;
- (2) One (1) Field Hopper to Stacker Conveyor;
- (3) One (1) Stacker Conveyor to MMD Crusher;
- (4) One (1) MMD Crusher;
- (5) One (1) MMD Crusher to Hopper AA;
- (6) One (1) Hopper AA to Vibrating Feeder;
- (7) One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;
- (8) One (1) Crusher AP Operation;
- (9) One (1) Crusher AP to Silo Feed Conveyor AW;
- (10) One (1) Crusher AP to Silo Feed Conveyor AW;
- (11) One (1) Silo Feed Conveyor AW to 2 Silo AY;
- (12) One (1) Baghouse AL Discharge;
- (13) Two (2) Silos AY to 2 Weight Feeder BB;
- (14) Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
- (15) Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
- (16) Two (2) Pugmills Mixing BD Operation;
- (17) Two (2) Pugmills BD Discharge to 2 Briquetter Feed Conveyors BE;
- (18) Two (2) Briquetters Feed Conveyors BE to 2 Briquetters BF;

- (19) Two (2) Briquetters BF Operation;
- (20) Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- (21) Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- (22) One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;
- (23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

(b) One-conveyor Line:

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;
- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;
- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (3) Sample Systems AJ, BL, BN (all operating at same time).

(c) Fugitive Emission Points:

- (1) Fugitives from Trucks - Unpaved Haul Road;
- (2) Fugitives from Tankers - Unpaved Haul Road;
- (3) Fugitives from Trucks - Paved Haul Road;
- (4) Fugitives from Tankers - Paved Haul Road.

See Appendix A (3 pages) for the detailed list of emission units.

- (d) Three binder storage tanks, identified as Emission Unit ID BQ, each with a maximum capacity of 25,000 gallons, storing water-based asphalt emulsion, or similar materials, equipped with no pollution control device, and exhausting to Stack/Vent ID BQ.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a support facility for Citizens Gas & Coke Utility, T097-7302-00061, a major source, as defined in 326 IAC 2-7-1(22). The application will be incorporated in that of Citizens Gas & Coke Utility.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

A synthetic fuel manufacturing facility consisting of one (1) Two-conveyor line, one (1) One-conveyor line, with total capacity of 300 tons of coal per hour, and supporting equipment. Emissions are controlled by two (2) baghouses Emission Unit IDs AL and NH, having a maximum design flow rate of 20,000 acfm each exhausting to Stacks IDs AL and NH, having full and partial enclosures, with the addition of post binder solution and including the following emission units and control equipment:

(a) Two-conveyor Line:

- (1) One (1) Field Hopper Loading;
- (2) One (1) Field Hopper to Stacker Conveyor;
- (3) One (1) Stacker Conveyor to MMD Crusher;
- (4) One (1) MMD Crusher;
- (5) One (1) MMD Crusher to Hopper AA;
- (1) One (1) Hopper AA to Vibrating Feeder;
- (2) One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;
- (3) One (1) Crusher AP Operation;
- (4) One (1) Crusher AP to Silo Feed Conveyor AW;
- (5) One (1) Crusher AP to Silo Feed Conveyor AW;
- (6) One (1) Silo Feed Conveyor AW to 2 Silo AY;
- (7) One (1) Baghouse AL Discharge;
- (8) Two (2) Silos AY to 2 Weight Feeder BB;
- (9) Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
- (10) Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
- (11) Two (2) Pugmills Mixing BD Operation;
- (12) Two (2) Pugmills BD Discharge to 2 Briquetter Feed Conveyors BE;
- (13) Two (2) Briquetters Feed Conveyors BE to 2 Briquetters BF
- (14) Two (2) Briquetters BF Operation;
- (15) Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- (16) Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- (17) One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;
- (23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

(b) One-conveyor Line:

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;



- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;
- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (4) Sample Systems AJ, BL, BN (all operating at same time);

(c) Fugitive Emission Points:

- (1) Fugitives from Trucks - Unpaved Haul Road;
- (2) Fugitives from Tankers - Unpaved Haul Road;
- (3) Fugitives from Trucks - Paved Haul Road;
- (4) Fugitives from Tankers - Paved Haul Road.

(d) Three binder storage tanks, identified as Emission Unit ID BQ, each with a maximum capacity of 25,000 gallons, storing water-based asphalt emulsion, or similar materials, equipped with no pollution control device, and exhausting to Stack/Vent ID BQ.

See Appendix A (3 pages) for the detailed list of emission units.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

### **D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]**

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Y.

### **D.1.2 New Source Performance Standard (NSPS) [326 IAC 12-1][40 CFR Part 60.250, Subpart Y]**

Pursuant to 326 IAC 12-1 and 40 CFR Part 60.250 (Standards of Performance for Coal Preparation Plants), the Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit twenty (20%) percent opacity or greater.

### **D.1.3 Particulate Matter (PM and PM10) [326 IAC 6-1-2(a)] and [326 IAC 2-2]**

Pursuant to 326 IAC 6-1-2(a) (Particulate Rules; Nonattainment Area Particulate Limitations: Specified), PM emissions from the Crushers Emission Units IDs AP and NF each shall not exceed 0.03 grains per dry standard cubic foot exhaust. This is equivalent to 5.14 lbs particulate matter per hour from each unit.

The PM emissions from this source shall be limited to less than 25 tons per year, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply.

The PM10 emissions from this source shall be limited to less than 15 tons per year, which is equivalent to less than 3.42 pounds per hour, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply.

### **D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section C.2 - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

## **Compliance Determination Requirements**

### **D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

The Permittee is not required to test this facility by this permit. However, IDEM and ERMD may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM and/or ERMD, compliance with the PM and PM10 limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C.6 - Performance Testing.

### **D.1.6 New Source Performance Standard (NSPS) [326 IAC 12-1][40 CFR Part 60.252(c) & 40 CFR Part 60.8]**

Pursuant to 326 IAC 12-1, 40 CFR Part 60.252(c) and 40 CFR Part 60.8, within sixty (60) days after achieving the maximum production rate at which the Crushers Emission Units IDs AP and NF will be operated, but not later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct Method 9 opacity evaluations utilizing the notification procedures of 40 CFR Part 60.7 and the initial opacity evaluation procedures as specified in 40 CFR Part 60 Appendix A and 40 CFR 60.11. Notification and reporting shall be in accordance with Section C.6 Performance Testing.

## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

### **D.1.7 Visible Emissions Notations**

- (a) Daily visible emission notations of the coal processing and conveying equipment, coal storage system, coal transfer and loading system processing coal shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.1.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of daily visible emission notations of the coal processing and conveying equipment, coal storage system, coal transfer and loading system processing coal.
- (b) All records shall be maintained in accordance with Section C.11 - General Record Keeping Requirements, of this permit.

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
Indianapolis Environmental Resources Management Division**

**Technical Support Document (TSD) for a Part 70 Minor Source  
Modification**

**Source Background and Description**

Source Name:	DTE Indycoke, LLC at Citizens Gas & Coke Utility
Source Location:	2950 East Prospect Street, Indianapolis, Indiana 46203
County:	Marion County
SIC Code:	2999
Operation Permit No.:	T097-7302-00061
Operation Permit Issuance Date:	To Be Issued
Minor Source Modification No.:	097-14066-00061
Permit Reviewer:	Boris Gorlin

The Office of Air Quality (OAQ) and the Indianapolis Environmental Resources Management Division (ERMD) have reviewed a modification application from DTE Indycoke relating to the construction and operation of additional coal processing equipment to the existing synthetic fuel manufacturing facility with 300 tons of coal per hour capacity as listed below:

A synthetic fuel manufacturing facility consisting of one (1) Two-conveyor line, one (1) One-conveyor line, with total capacity of 300 tons of coal per hour, and supporting equipment. Emissions are controlled by two (2) baghouses Emission Unit IDs AL and NH, having a maximum design flow rate of 20,000 acfm each exhausting to Stacks IDs AL and NH, having full and partial enclosures, with the addition of post binder solution and including the following emission units and control equipment:

(a) Two-conveyor Line:

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- (3) One (1) Stacker Conveyor to MMD Crusher;
- (4) One (1) MMD Crusher;
- (5) One (1) MMD Crusher to Hopper AA;
- (6) One (1) Hopper AA to Vibrating Feeder;
- (7) One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;
- (8) One (1) Crusher AP Operation;
- (9) One (1) Crusher AP to Silo Feed Conveyor AW;
- (10) One (1) Crusher AP to Silo Feed Conveyor AW;
- (11) One (1) Silo Feed Conveyor AW to 2 Silo AY;
- (12) One (1) Baghouse AL Discharge;
- (13) Two (2) Silos AY to 2 Weight Feeder BB;
- (14) Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
- (15) Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
- (16) Two (2) Pugmills Mixing BD Operation;
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- (19) Two (2) Briquetters BF Operation;
- (20) Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- (21) Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- (22) One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;

(23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

(b) One-conveyor Line:

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;
- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;
- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (4) Sample Systems AJ, BL, BN (all operating at same time);

(c) Fugitive Emission Points:

- (1) Fugitives from Trucks - Unpaved Haul Road;
- (2) Fugitives from Tankers - Unpaved Haul Road;
- (3) Fugitives from Trucks - Paved Haul Road;
- (4) Fugitives from Tankers - Paved Haul Road;

See Appendix A (3 pages) for the detailed list of existing and new equipment.

### Source Definition

ERMD has determined that DTE Indycoke, LLC is a support facility for the Citizens Gas & Coke Utility, a coke manufacturing plant, because their territories are adjacent and contiguous, and all the synthetic fuel to be manufactured by DTE Indycoke, LLC will be used by the Citizens Gas & Coke Utility. Therefore, the term "source" in the Part 70 documents refers to both DTE Indycoke, LLC and the Citizens Gas & Coke Utility as one source.

## History

On March 27, 2000, DTE Indycoke, LLC submitted an application to the OAQ and ERMD requesting to add a synthetic fuel manufacturing facility.

On June 30, 2000, DTE Indycoke, LLC was issued a Part 70 Minor Source Modification 097-12101-00061.

On December 20, 2000, DTE Indycoke, LLC submitted a request to the OAQ and ERMD for an Administrative Amendment to the Part 70 Minor Source Modification to state the Crusher, Emission Unit ID AP, average capacity of 175 tons per hour instead of a maximum capacity of 175 tons per hour. On February 15, 2001, DTE Indycoke, LLC was issued a First Administrative Amendment 097-13675-00061 to Part 70 Minor Source Modification 097-12101-00061.

On February 28, 2001, DTE Indycoke, LLC submitted an application to the OAQ and ERMD requesting to add equipment missed in the initial permit and new equipment to be constructed. Also, the source requested to use different, more specific, emission factors, reflecting coal processing (in the initial permit emission factors for stone crushing operations were used).

The Citizens Gas & Coke Utility submitted a Title V application, received by ERMD on September 24, 1996. A Title V permit has not been issued to Citizens Gas & Coke Utility.

## Enforcement Issue

There are no enforcement actions pending.

## Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
AL	Crusher	60	1	20,000	Ambient
NH	Crusher	60	1	20,000	Ambient

## Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 27, 2001. Additional information was received on May 24, 2001.

## Emission Calculations

See Appendix B of this document for detailed emissions calculations, pages 1 through 4.

Emission factors used were developed by the Kentucky Department of Environmental Protection (KDEP) for coal handling processes; they more accurately reflect the emissions from the permitted units than emission factors (for stone crushing operations) used in the initial permit 097-12101-00061.

## Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the sourcewide PTE before controls (without full and partial enclosures and at the inlet of the baghouses). Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	14.67
PM-10	11.91
SO <sub>2</sub>	0.0
VOC	0.012
CO	0.0
NO <sub>x</sub>	0.0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Benzene	0.0012
Ethylbenzene	0.0054
<b>TOTAL</b>	<b>0.0066</b>

(a) Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. However, there is an applicable New Source Performance Standards that was in effect (40 CFR Part 60 Subpart Y) prior to August 7, 1980. Therefore, the fugitive PM emissions were counted toward determination of PSD and Emission Offset applicability.

### Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(A), Modifications, where the modifications have a potential to emit of less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either particulate matter (PM) or particulate matter less than ten (10) microns (PM10).

### County Attainment Status

The source is located in Marion County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	Attainment
SO <sub>2</sub>	Maintenance
NO <sub>2</sub>	Attainment
Ozone	Maintenance
CO	Maintenance
Lead	Maintenance

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as maintenance, attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions

were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Marion County has been classified as attainment or unclassifiable for PM<sub>10</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

No previous emission data has been received from the source.

### Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units **after controls**. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Existing coal processing facility - before modification	21.90	9.38	0.0	0.012	0.0	0.0	0.0066
After modification	4.09	3.19	0.0	0.012	0.0	0.0	0.0066
Emission Increase/Decrease	-17.81	-6.19	0	0	0	0	0

The emission decrease derives from new, more relevant (coal processing instead of stone crushing in the original permit) emission factors, add-on control (second baghouse, partial and full enclosure), merchant pile fugitive emissions calculation using the formula recommended by the Air Pollution Engineering Manual (1992 edition, page 136; see Emission Calculation spreadsheet, Appendix B, page 2 of 4).

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Federal Rule Applicability

This source is subject to the provisions of 326 IAC 12, 40 CFR Part 60.250 Subpart Y, New Source Performance Standards for Coal Preparation because it has a capacity to process more than 200 tons of coal per day (maximum capacity 300 tons per hour), has coal processing and conveying equipment including crushers, coal storage/coal transfer and loading systems and has commenced construction or modification after October 24, 1974.

This rule limits emissions from any coal processing and conveying equipment, coal storage systems, or coal transfer and loading to less than, or equal to, twenty percent (20%) opacity.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

### State Rule Applicability - Entire Facility

All the sourcewide conditions of the original permit 097-12101-00061 will be applicable to this



source after modification.

#### 326 IAC 2-2 (Prevention of Significant Deterioration)

This source shall be limited to less than 25 and 15 tons per year of the PM and PM10 emissions respectively, such that the 326 IAC 2-2 requirements shall not apply.

The sourcewide potential emissions of PM and PM10 before control are 14.66 and 11.91 tons per year respectively, therefore this source will be in compliance with these limits.

#### State Rule Applicability - Individual Facilities

##### 326 IAC 6-1-2(a) (Particulate Rules)

The crushers emission unit IDs AP and NF, are subject to the provisions of 326 IAC 6-1-2(a), (Particulate Rules; Nonattainment Area Particulate Limitations: Specified). The potential particulate matter emissions from this synthetic fuel manufacturing facility are less than 100 tons per year. However, this is a support facility of Citizens Gas and Coke Utility which currently has potential emissions of particulate matter of greater than 100 tons per year and which is subject to these provisions. Therefore, this synthetic fuel manufacturing facility is subject to the provisions of this rule of emissions limited to 0.03 grains per dry standard cubic foot of discharge.

PM emissions from the Crushers Emission Units IDs AP and NF shall not exceed 0.03 grains per dry standard cubic foot exhaust. This is equivalent to 5.14 lbs particulate matter per hour from each unit.

Emission Unit ID AP uncontrolled PM PTE is 1.22 ton/yr which is equivalent to 0.279 lb/hr, Emission Unit ID NF uncontrolled PTE is 0.35 ton/yr which is equivalent to 0.080 lb/hr; therefore, the source will be in compliance with this rule.

The PM emissions from this source shall be limited to less than 25 tons per year, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply.

The PM10 emissions from this source shall be limited to less than 15 tons per year, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply. This limit is equivalent to PM10 emissions less than 3.42 pounds per hour.

##### 326 IAC 2.4.1 (Major Sources of Hazardous Air Pollutants)

This source is not a major source of HAPs (HAP emission is less than 25 tons per year combined and less than 10 tons per year of an individual HAP), therefore this rule is not applicable to this source.

##### 326 IAC 12 (New Source Performance Standards)

The crushers and storage tanks are subject to the provisions of the New Source Performance Standards, 40 CFR Part 60.11(b), [Subpart Kb] and 40 CFR Part 60.250, [Subpart Y], respectively, which are incorporated by reference under 326 IAC 12.

#### Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 097-14066-00061.

#### Proposed Changes

The following changes were made in the Minor Source Modification 097-12101-00061 (the permit

language was changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

Condition A.1 was changed to reflect the current phone number and name of the source's Manager of Environmental Affairs.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a synthetic fuel manufacturing facility.

Responsible Official: Barry Markowitz  
Source Address: 2950 East Prospect Street, Indianapolis, Indiana, 46203  
Mailing Address: ~~P.O. Box 8614, 425 414~~ South Main Street, Suite 204 **600**, Ann Arbor, MI ~~48107 48104~~  
Phone Number: (734) ~~913-5992 for Kerry Kaminski~~ **302-8235 for Katie Panczak**  
SIC Code: 2999  
County Location: Marion County  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program; Minor under PSD Rules

The condition A.2 (Emission Units and Pollution Control Equipment Summary) was modified to reflect addition of the coal processing equipment.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

A synthetic fuel manufacturing facility **consisting of one (1) Two-conveyor line, one (1) One-conveyor line, with total capacity of 300 tons of coal per hour, and supporting equipment. Emissions are controlled by two (2) baghouses Emission Unit IDs AL and NH, having a maximum design flow rate of 20,000 acfm each exhausting to Stacks IDs AL and NH, having full and partial enclosures, with the addition of post binder solution and including the following emission units and control equipment:** ~~which includes one (1) crusher, identified as Emission Unit ID AP, with a maximum capacity of 175 tons per hour, using a jetpulse baghouse identified as Control Equipment ID BP, which has a maximum design flow rate of 20,000 acfm exhausting to Stack/Vent ID AL. Support equipment includes:~~

- ~~\_\_\_\_\_ (1) One (1) hopper, with a maximum capacity of 175 tons coal per hour;~~
- ~~\_\_\_\_\_ (2) Two (2) conveyers, each with a maximum capacity of 175 tons material per hour;~~
- ~~\_\_\_\_\_ (3) Nine (9) conveyers, each with a maximum capacity of 58 1/3 tons material per hour;~~
- ~~\_\_\_\_\_ (4) Two (2) pairs conveyers, each with a maximum capacity of 175 tons coal per hour;~~
- ~~\_\_\_\_\_ (5) Two (2) silos, each with a maximum capacity of 87.5 tons coal material per hour;~~
- ~~\_\_\_\_\_ (6) Three (3) pugmills, each with a maximum capacity of 58 1/3 tons coal material per hour;~~
- ~~\_\_\_\_\_ (7) Three briquetters, each with a maximum capacity of 58 1/3 tons coal material per hour.~~

(a) Two-conveyor Line:

- (1) One (1) Field Hopper Loading;
- (2) One (1) Field Hopper to Stacker Conveyor;
- (3) One (1) Stacker Conveyor to MMD Crusher;
- (4) One (1) MMD Crusher;
- (5) One (1) MMD Crusher to Hopper AA;
- (6) One (1) Hopper AA to Vibrating Feeder;
- (7) One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;

- (8) One (1) Crusher AP Operation;
- (9) One (1) Crusher AP to Silo Feed Conveyor AW;
- (10) One (1) Crusher AP to Silo Feed Conveyor AW;
- (11) One (1) Silo Feed Conveyor AW to 2 Silo AY;
- (12) One (1) Baghouse AL Discharge;
- (13) Two (2) Silos AY to 2 Weight Feeder BB;
- (14) Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
- (15) Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
- (16) Two (2) Pugmills Mixing BD Operation;
- (17) Two (2) Pugmills BD Discharge to 2 Briquetter Feed Conveyors BE;
- (18) Two (2) Briquetters Feed Conveyors BE to 2 Briquetters BF
- (19) Two (2) Briquetters BF Operation;
- (20) Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- (21) Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- (22) One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;
- (23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

**(b) One-conveyor Line:**

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;
- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;
- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (4) Sample Systems AJ, BL, BN (all operating at same time);

**(c) Fugitive Emission Points:**

- (1) Fugitives from Trucks - Unpaved Haul Road;**
- (2) Fugitives from Tankers - Unpaved Haul Road;**
- (3) Fugitives from Trucks - Paved Haul Road;**
- (4) Fugitives from Tankers - Paved Haul Road.**

**(b) (d)** Three binder storage tanks, identified as Emission Unit ID BQ, each with a maximum capacity of 25,000 gallons, storing water-based asphalt emulsion, or similar materials, equipped with no pollution control device, and exhausting to Stack/Vent ID BQ.

**See Appendix A (3 pages) for the detailed list of emission units.**

Section D.1 (Facility Operation Conditions) was changed to reflect addition of the coal processing equipment.

**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]**

A synthetic fuel manufacturing facility consisting of one (1) Two-conveyor line, one (1) One-conveyor line, with total capacity of 300 tons of coal per hour, and supporting equipment. Emissions are controlled by two (2) baghouses Emission Unit IDs AL and NH, having a maximum design flow rate of 20,000 acfm each exhausting to Stacks IDs AL and NH, having full and partial enclosures, with the addition of post binder solution and including the following emission units and control equipment: which includes one (1) crusher, identified as Emission Unit ID AP, with a maximum capacity of 175 tons per hour, using a jetpulse baghouse identified as Control Equipment ID BP, which has a maximum design flow rate of 20,000 acfm exhausting to Stack/Vent ID AL. Support equipment includes:

- (1) One (1) hopper, with a maximum capacity of 175 tons coal per hour;
- (2) Two (2) conveyers, each with a maximum capacity of 175 tons material per hour;
- (3) Nine (9) conveyers, each with a maximum capacity of 58 1/3 tons material per hour;
- (4) Two (2) pairs conveyers, each with a maximum capacity of 175 tons coal per hour;
- (5) Two (2) silos, each with a maximum capacity of 87.5 tons coal material per hour;
- (6) Three (3) pugmills, each with a maximum capacity of 58 1/3 tons coal material per hour;
- (7) Three briquetters, each with a maximum capacity of 58 1/3 tons coal material per hour.

**(a) Two-conveyor Line:**

- (1) One (1) Field Hopper Loading;**
- (2) One (1) Field Hopper to Stacker Conveyor;**
- (3) One (1) Stacker Conveyor to MMD Crusher;**
- (4) One (1) MMD Crusher;**
- (5) One (1) MMD Crusher to Hopper AA;**
- (6) One (1) Hopper AA to Vibrating Feeder;**
- (7) One (1) Vibrating Feeder to Crusher Feed Conveyor AC ;**
- (8) One (1) Crusher AP Operation;**
- (9) One (1) Crusher AP to Silo Feed Conveyor AW;**

- (10) One (1) Crusher AP to Silo Feed Conveyor AW;
- (11) One (1) Silo Feed Conveyor AW to 2 Silo AY;
- (12) One (1) Baghouse AL Discharge;
- (13) Two (2) Silos AY to 2 Weight Feeder BB;
- (14) Two (2) Weight Feeders BB to 2 Pugmills Feed Conveyors BC;
- (15) Two (2) Pugmills Feed Conveyors BC to 2 Pugmills BD;
- (16) Two (2) Pugmills Mixing BD Operation;
- (17) Two (2) Pugmills BD Discharge to 2 Briquetter Feed Conveyors BE;
- (18) Two (2) Briquetters Feed Conveyors BE to 2 Briquetters BF
- (19) Two (2) Briquetters BF Operation;
- (20) Two (2) Briquetter BF Product to 2 Briquette Transfer Conveyors BH;
- (21) Two (2) Briquette Transfer Conv. BH to Coke Plant Collecting Conveyor BJ;
- (22) One (1) Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conveyor BM;
- (23) One (1) Coke Plant Feed Conveyor BM to SC-2 (Citizens)

(b) One-conveyor Line:

- (1) One (1) Truck Unloading to Merchant Pile;
- (2) One (1) Merchant Pile;
- (3) One (1) Merchant Hopper (New) NA Loading;
- (4) One (1) Merchant Hopper NA to Feeder NB;
- (5) One (1) Feeder NC to Merchant Feed Conveyor NC;
- (6) One (1) Merchant Feed Conv NC to Crusher Bypass Diverter ND;
- (7) One (1) Crusher Bypass Diverter ND to Vibrating Feeder NE;
- (8) One (1) Vibrating Feeder NE to Crusher NF;
- (9) One (1) Crusher NF;
- (10) One (1) Crusher NF to Merchant Hopper Conveyor NG;
- (11) One (1) Baghouse NH Discharge;
- (12) One (1) Merchant Hopper Conv NG to Line Selector Gate NH;
- (13) One (1) Line Selector Gate NH to Line Selector Conveyor NI;
- (14) One (1) Line Selector Conveyor NI to Weight Feeder NJ;
- (15) One (1) Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC;
- (16) One (1) Pugmill Feed Conveyor BC to Pugmill BD;
- (17) One (1) Pugmill Mixing BD Operating;
- (18) One (1) Pugmill BD Discharge to Briquetter Feed Conveyor BE;
- (19) One (1) Briquetter Feed Conveyor BE to Briquetter BF;
- (20) One (1) Briquetter BF Operation;
- (21) One (1) Briquetter BF Product to Briquette Transfer Conveyor BH;
- (22) One (1) Briquette Transfer Conveyor BH to Kipin Collecting Conv BK;
- (23) One (1) Kipin Collecting Conveyor BK to Kipin Feed Conv. BS;
- (24) One (1) Kipin Feed Conveyor BS to Merchant Product Gate (New) NK;
- (25) One (1) Merchant Product Gate NK to Kipin Pile (Loadout);
- (26) One (1) Merchant Product Gate NK to Mrcht Product Conv NL;
- (27) One (1) Merchant Product Conveyor NL to Truck Loadout Diverter Gate;
- (28) One (1) Truck Loadout Gate to Shed Feed Conv. NN;

- (29) One (1) Shed Feed Conv. NN to Shed Pile;
- (30) One (1) Loading from Shed Pile to Shed Hopper NO;
- (31) One (1) Loading Shed Hopper NO to Shed Reclaim Conv. NP;
- (32) One (1) Shed Reclaim Conveyor NP to Mrcht Product Conv NL;
- (33) One (1) Merchant Product Conveyor NL to Truck Hopper NQ;
- (34) One (1) Truck Hopper NQ to Highway Trucks;
- (35) Three (4) Sample Systems AJ, BL, BN (all operating at same time);

(c) **Fugitive Emission Points:**

- (1) **Fugitives from Trucks - Unpaved Haul Road;**
- (2) **Fugitives from Tankers - Unpaved Haul Road;**
- (3) **Fugitives from Trucks - Paved Haul Road;**
- (4) **Fugitives from Tankers - Paved Haul Road.**

(b) (d) Three binder storage tanks, identified as Emission Unit ID BQ, each with a maximum capacity of 25,000 gallons, storing water-based asphalt emulsion, or similar materials, equipped with no pollution control device, and exhausting to Stack/Vent ID BQ.

**See Appendix A (3 pages) for the detailed list of emission units.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

The change in equipment descriptions effect the following Section D.1 provisions:

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.1.3 Particulate Matter (PM) [326 IAC 6-1-2(a)]**

Pursuant to 326 IAC 6-1-2(a) (Particulate Rules; Nonnattainment Area Particulate Limitations: Specified), PM emissions from the Crushers Emission Units IDs AP **and NF each** shall not exceed 0.03 grains per dry standard cubic foot exhaust. This is equivalent to 5.14 lbs particulate matter per hour **from each unit.**

**The PM emissions from this source shall be limited to less than 25 tons per year, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply.**

**The PM10 emissions from this source shall be limited to less than 15 tons per year, which is equivalent to less than 3.42 pounds per hour, such that the 326 IAC 2-2 (Prevention of Significant Deterioration Requirements) shall not apply.**

**Compliance Determination Requirements**

**D.1.6 New Source Performance Standard (NSPS) [326 IAC 12-1][40 CFR Part 60.252(c) & 40 CFR Part 60.8]**

Pursuant to 326 IAC 12-1, 40 CFR Part 60.252(c) and 40 CFR Part 60.8, within sixty (60) days after acheiving the maximum production rate at which the Crushers Emission Units IDs AP **and NF** will be operated, but not later than one hundred and eighty (180) days after initial startup, the Permittee shall

conduct Method 9 opacity evaluations utilizing the notification procedures of 40 CFR Part 60.7 and the initial opacity evaluation procedures as specified in 40 CFR Part 60 Appendix A and 40 CFR 60.11. Notification and reporting shall be in accordance with Section C.6 Performance Testing.

**Appendix A: List of Emission units**

Source Name: **DTE IndyCoke, LLC**  
Source Address: **2950 Prospect Street, Indianapolis, IN**  
Minor Source Mod. No: **097-14066-00061**  
Title V Permit No.: **T097-7302-00061**  
Reviewer: **Boris Gorlin**

	Equipment	Comments	Operation	Max. Rated Capacity	Plant Throughput	Air Control *
<b><u>Two-conveyor Line</u></b>						
1	Field Hopper Loading	New	Loading	-	200	
1	Field Hopper to Stacker Conveyor	New	Conveying	-	200	PE
1	Stacker Conveyor to MMD Crusher	New	Conveying	-	200	-
1	MMD Crusher Operating	New	1st Crushing	-	200	-
1	MMD Crusher to Hopper AA	New	Conveying	-	200	-
1	Hopper AA to Vibrating Feeder	Existing	Conveying	-	200	FE
1	Vibrating Feeder to Crusher Feed Conveyor AC	Existing	Conveying	-	200	FE
1	Crusher Feed Conveyor AC to Crusher Bypass Diverter	Existing	Conveying	-	200	FE+IN
1	Crusher Bypass Diverter to Vibrating Feeder	Existing	Conveying	-	200	FE+IN
1	Vibrating Feeder to Crusher AP	Existing	Conveying	-	200	BAG+IN
1	Crusher AP Operation	Existing	2nd Crushing	-	200	BAG+IN
1	Crusher AP to Silo Feed Conveyor AW	Existing	Conveying	-	200	BAG+IN
1	Silo Feed Conveyor AW to 2 Silo AY	Existing	Conveying	-	200	BAG
1	Baghouse AL Discharge	Existing	Conveying	-	5	PE
2	Silos AY to 2 Weight Feeder BB	Existing	Conveying	-	200	FE
2	Weight Feeders BB to 2 Pugmills Feed Conveyors BC	Existing	Conveying	-	200	PE
2	Pugmills Feed Conveyors BC to 2 Pugmills BD	Existing	Conveying	-	200	FE+IN
2	Pugmills Mixing BD Operation	Existing	Mixing	20 6	206	SEALED
2	Pugmills BD Discharge to 2 Briquetter Feed Conveyors	Existing	Conveying	-	206	FE+BE+IN



	BE					
	<b>Equipment</b>	<b>Comments</b>	<b>Operation</b>	<b>Max. Rated Capacity</b>	<b>Plant Throughput</b>	<b>Air Control</b>
2	Briquetters Feed Conveyors BE to 2 Briquetters BF	Existing	Conveying	-	206	FE+BE+IN
2	Briquetters BF Operation	Existing	Briquetter	20 6	206	FE+BE+IN
2	Briquetter BF Product to 2 Briquette Transfer Conveyors BH	Existing	Conveying	-	206	FE+BE+IN
2	Briquette Transfer Conv. BH to Coke Plant Collecting Conv BJ	Existing	Conveying	-	206	FE+B
1	Coke Plant Collecting Conveyor BJ to Coke Plant Feed Conv BM	Existing	Conveying	-	206	FE+B
1	Coke Plant Feed Conveyor BM to SC-2 (Citizens)	Existing	Conveying	-	206	FE+B
<b>One-conveyor Line</b>						
1	Truck Unloading to Merchant Pile	New	Loading	-	100	-
1	Merchant Pile	New	Stockpile	-	100	W
1	Merchant Hopper (New) NA Loading	New	Loading	-	100	-
1	Merchant Hopper NA to Feeder NB	New	Conveying	-	100	PE
1	Feeder NC to Merchant Feed Conveyor NC	New	Conveying	-	100	FE
1	Merchant Feed Conveyor NC to Crusher Bypass Diverter ND	New	Conveying	-	100	FE+IN
1	Crusher Bypass Diverter ND to Vibrating Feeder NE	New	Conveying	-	100	FE+IN
1	Vibrating Feeder NE to Crusher NF	New	Conveying	-	100	BAG+IN
1	Crusher NF Operating	New	Crushing	-	100	BAG+IN
1	Crusher NF to Merchant Hopper Conveyor NG	New	Conveying	-	100	BAG+IN
1	Baghouse NH Discharge	New	Conveying	-	5	PE
1	Mrch Hopper Conv NG to Line Selector Gate NH	New	Conveying	-	100	FE
1	Line Selector Gate NH to Line Selector Conveyor NI	New	Conveying	-	100	FE
1	Line Selector Conveyor NI to Weight Feeder NJ	New	Conveying	-	100	FE
1	Weight Feeder (New) NJ to Pugmill Feed Conveyor (Exist) BC	Existing	Conveying	-	100	FE
1	Pugmill Feed Conveyor BC to Pugmill BD	Existing	Conveying	-	100	FE+IN
1	Pugmill Mixing BD Operation	Existing	Mixing	103	103	SEALED

1	Pugmill BD Discharge to Briquetter Feed Conveyor BE	Existing	Conveying	-	103	FE+B+IN
	<b>Equipment</b>	<b>Comments</b>	<b>Operation</b>	<b>Max. Rated Capacity</b>	<b>Plant Throughput</b>	<b>Air Control</b>
1	Briquetter Feed Conveyor BE to Briquetter BF	Existing	Conveying	-	103	FE+B+IN
1	Briquetter BF Operation	Existing	Briquetter	103	103	FE+B+IN
1	Briquetter BF Product to Briquette Transfer Conveyor BH	Existing	Conveying	-	103	FE+B+IN
1	Briquette Transfer Conv BH to Kipin Collecting Conv BK	Existing	Conveying	-	103	FE+B
1	Kipin Collecting Conv. BK to Kipin Feed Conv. BS	Existing	Conveying	-	103	FE+B
1	Kipin Feed Conv. BS to Merchant Product Gate (New) NK	<b>New</b>	Conveying	-	103	FE+B
1	Merchant Product Gate NK to Kipin Pile	<b>New</b>	Loadout	-	5	PE+B
1	Merchant Product Gate NK to Mrcht Product Conv NL	<b>New</b>	Conveying	-		FE+B
1	Merchant Product Conv. NL to Truck Loadout Diverter Gate	<b>New</b>	Conveying	-	98	FE+B
1	Truck Loadout Gate to Shed Feed Conv. NN	<b>New</b>	Conveying	-	103	FE+B
1	Shed Feed Conv. NN to Shed Pile	<b>New</b>	Loadout	-	103	FE+B+IN
1	Loading from Shed Pile to Shed Hopper NO	<b>New</b>	Loadout	-	103	FE+B+IN
1	Loading Shed Hopper NO to Shed Reclaim Conv. NP	<b>New</b>	Conveying	-	103	FE+B+IN
1	Shed Reclaim Conv. NP to Mrcht Product Conv NL	<b>New</b>	Conveying	-	103	FE+B
1	Merchant Product Conv. NL to Truck Hopper NQ	<b>New</b>	Loadout	-	103	PE+B
1	Truck Hopper NQ to Highway Trucks	<b>New</b>	Loadout	-	103	B
4	Sample System AJ, BL, BN (All operating at same time)	<b>Missed</b>	Conveying	-	20	FE+B
<b>Fugitive Emissions</b>						
	Fugitives from Trucks - Unpaved Haul Road	<b>Modified</b>	Fugitive	-	-	W
	Fugitives from Tankers - Unpaved Haul Road	<b>New</b>	Fugitive	-	-	W
	Fugitives from Trucks - Paved Haul Road	<b>Modified</b>	Fugitive	-	-	-
	Fugitives from Tankers - Paved Haul Road	<b>New</b>	Fugitive	-	-	-

**\* Air Control Abbreviations:**

B - Post Binder Addition  
 BAG - Baghouse Pickup Point

FE - Fully Enclosed

IN - Inside complete building (4 walls with roof)

PE - Partially Enclosed

SEALED - Non-vented operation

W - Wed Spray

Appendix B: Emissions Calculations																
Source Name: DTE INDYCOKE, LLC																
Source Address: 2850 E. Prospekt Street, Indianapolis, In																
Minor Source Mod. No.: 097-1486-00061																
Title V Permit No.: 1097-7302-00061																
Reviewer: Boris Gordin																

**Appendix A: Emissions Calculations****Appendix B: Emissions Calculations**Source Name: **DTE INDYCOKE, LLC**Source Address: **2950 E. Prospect Street, Indianapolis, In**Minor Source Mod. No.: **097-14066-00061**Title V Permit No.: **T097-7302-00061**Reviewer: **Boris Gorlin****Merchant Pile Fugitive emissions**

Storage Pile	Area		Particular Matter Emissions			
	ft <sup>2</sup> Area	acre B	lb/acre/day E	lb/day C	lb/yr D	ton/yr F
ST-14 (Raw Coal)	8,000	0.184	3.770	0.692	252.7	<b>0.126</b>

$$B = A / 43,560 \text{ ft}^2/\text{acre}$$

$$E = 1.7 * (s/1.5) * (365-p) / 235 * (f/15) \text{ lb/acre/day [Air Pollution Engineering Manual, Air \& Waste Management Association, 1992, page 136 (5)]}$$

Where E - uncontrolled Emission Factor (lb/day/acre)

s - % silt = **2.2%** for coal (AP-42, 5th Edition, Table 13.2.4-1)p - number of days when precipitation is greater than or equal to 0.01" = **160 days** (AP-42, 5th Edition, Table 13.2.2-1)f - %time when wind speed exceeds 12 mph = **26%**

$$C = (B * E) / 24 \text{ hr/day, lb/hr}$$

**Appendix B: Emissions Calculations. Fugitive Sources**

**Source Name:** DTE INDYCOKE, LLC  
**Source Address:** 2950 E. Prospect Street, Indianapolis, In  
**Minor Source Mod. No.:** 097-14066-00061  
**Title V Permit No.:** T097-7302-00061  
**Reviewer:** Boris Gorlin

Unpaved Road - Truck Travel IN AND OUT - 100 TPH  
 AP-42, Chapter 13.2.2

Parameters:

Truck Capacity = 40 ton  
 Distance to Dump Location = 300 ft (one-way)  
 Number of Trips = 21900

Total Haul Distance = 21900 trips x 300 ft x 2 roundtrip = 13140000 ft/yr  
 = 2489 mi/yr

$E = k(5.9)(s/12)(S/30)(W/3)^{0.7}(w/4)^{0.5}(365-p/365)$ , lbNMT

where: E = lbNMT (pound per vehicle miles traveled)

k = particle size multiplier (dimensionless)

s = silt content of road surface material (%)

S = mean vehicle speed, (miles per hour, mph)

W = mean vehicle weight (ton)

w = mean number of wheels

p = number of days with > 0.01 inches of precipitation per year

k = 1.0 PM 0.36 PM-10  
 s = 6%  
 S = 10 mph  
 W = 50 tons  
 w = 18  
 p = 115 days

PM (k = 1.0)

$E = 1.0(5.9)(6/12)(10/30)(40/3)^{0.7}(4/4)^{0.5}(365-140/365)$   
 E = 10.24 lbNMT

PM = 2489 mi/yr x E x 0.3  
 PM = 7644.18 lb/yr  
 PM = 3.82 ton/yr

PM -10 (k = 0.36)

$E = 0.36(5.9)(6/12)(10/30)(40/3)^{0.7}(4/4)^{0.5}(365-140/365)$   
 E = 3.69 lbNMT  
 PM-10 = 2489 mi/yr x E x 0.3  
 PM-10 = 2751.91 lb/yr  
 PM-10 = 1.38 ton/yr

**Appendix B: Emissions Calculations. Fugitive Sources**

**Source Name:** DTE INDYCOKE, LLC  
**Source Address:** 2950 E. Prospect Street, Indianapolis, In  
**Minor Source Mod. No.:** 097-14066-00061  
**Title V Permit No.:** T097-7302-00061  
**Reviewer:** Boris Gorlin

**Unpaved Road - Tanker Travel**

AP-42, Chapter 13.2.2

Parameters:

Tanker Capacity = 5000 gallons  
 Distance to Dump Location = 300 ft (one-way)  
 Number of Trips = 2555

Total Haul Distance = 2555 trips x 300 ft x 2 roundtrip = 1533000 ft/yr  
 = 290 mi/yr

$$E = k(5.9)(s/12)(S/30)(W/3)^{\circ}(w/4)^{\circ}5(365-p/365), \text{ lbNMT}$$

where: E = lbNMT (pound per vehicle miles traveled)

k = particle size multiplier (dimensionless)

s = silt content of road surface material (%)

S = mean vehicle speed, (miles per hour, mph)

W = mean vehicle weight (ton)

w = mean number of wheels p = number of days with &gt; 0.01 inches of precipitation per year

k = 1.0 PM 0.36 PM-10  
 S = 6  
 S = 10 mph  
 W = 27.5 tons  
 w = 18  
 p = 115 days

Assume 70% control for wetting roadways

PM (k = 1.0)

$$E = 1.0(5.9)(6/12)(10/30)(40/3)^{\circ}(4/4)^{\circ}5(365-140/365)$$

$$E = 6.74 \text{ lbNMT}$$

PM = 290mUyrxEx0.3  
 PM = 586.86 lb/yr  
 PM = 0.2934 ton/yr

PM -10 (k = 0.36)

$$E = 0.36(5.9)(6/12)(10/30)(40/3)^{\circ}(4/4)^{\circ}5(365-140/365)$$

$$E = 2.43 \text{ lbNMT}$$

$$\text{PM-10} = 290 \text{ mi/yr} \times E \times 0.3$$

$$\text{PM-10} = 211.27 \text{ lb/yr}$$

$$\text{PM-10} = 0.1056341 \text{ yr}$$